# RECOVRING MASTER LOCK COMBINATIONS

Guide & Combination List



# **Recovering Master Lock Combinations**

© 2007 jonwestfall.com (Portions from fusor.us, © Liam Bowen) This document is merely a tool, please do not use it for evil or believe that I did anything more than assemble it! This document may be downloaded from the Files section of JonWestfall.Com

## The Basic Procedure

The following was retrieved from fusor.us/lockpick.html, written by Liam Bowen (LiamBowen@gmail.com).

have had to throw out several locks because I have lost the combination. I recently found a lock and I really hate to throw these things out, and I'm sure you do to (since you're reading this). I have read many places online that this is completely impossible, but it's not. It takes a little math, a lot of brute forcing, and some thinking.

I highly recommend going to a site like howstuffworks.com and finding out how a combination lock (padlock) works. This will make this entire process make more sense so that it's a lot easier to memorize.

Note that there are 64,000 possible combinations on a master lock (0-39 makes 40 possible values on each digit, there are 3 digits). This is a little inaccurate since there is a little tolerance in entering a number (38 or 36 usually works for 37, for instance), but it works for showing how much we'll narrow it down.

Firstly, note that the only tumbler that you actually move when you turn the dial is the one that controls the last digit. You will be finding the last digit first. This is the most crucial step. Do not mess up. Position the lock at zero. Pull up on the shackle (the U-shaped thing). Turn until it clicks.

<u>http://www.howstuffworks.com/inside-lock.htm</u> - see the last two pictures for exactly why it clicks like this, it should be pretty clear.

Now, when it "clicks" (you will feel it), it will lock in between two numbers. While maintaining tension on the shackle, turn the dial around. Note where the dial stops. Let's say that I can rotate the dial between 4 and 5. This means that the number I want to write down is 4.5. If it rotates between 4.5 and 5.5, the number that I want to write down is 5. This varies widely from lock to lock some don't have any tolerance for movement when tension is maintained, some have quite a bit. Use your best judgment, and if you screw up, you will notice in just a second.

#### RECOVERING MASTER LOCK COMBINATIONS

Do this around the entire lock. You will hopefully get 12 numbers. If you didn't, you screwed up and you need to do it again (you did make sure your lock was a Master lock, didn't you?).

Okay, so what are these numbers? One of them is the last digit to your lock. The other 11 are decoys. How do we know which is the correct one?

Let's take this series of possible last digits (these were the ones I used with my lock): 38.5, 35.5, 32, 28.5, 25.5 22, 19, 15.5, 12, 8.5, 5.5, 2

Sometimes it is very difficult to tell if something falls on the digit or between, so there should be 7 that have a .5 and 5 that don't.

First, take away all of the ones that have a .5 after them. They are all decoys.

So, you have 32, 22, 19, 12, and 2 left. You will note that they all have the same digit on the one's place except one of them. You are left with 19. That is the last digit.

I would recommend trying this with a lock that you know the combination to first, because if you get the wrong one this time, you'll probably get it wrong later too, and you may need to try up to 100 combinations later, and it will be pretty frustrating when none of them work.

Enter modulus. Modulus is a lesser-known mathematical operator that just means "remainder." The magic number with Master locks is four. You need to find the modulus of the last digit of your lock and four. For my lock, the last digit is 19. Let's do some long division! 4 into 19=4, and 4 times 4 is 16, and 19-16=3, so we have 4 remainder 3. So, 19 Mod 4 (sometimes stated 19%4) is 3. Now, you must list all 10 of the numbers with a modulus that is equal to [LastDigit Mod 4]. That means that I am left with 3, 7, 11, 15, 19, 23, 27, 31, 35, and 39.

One of those is the first digit.

The second digits are the easiest. Just add two to the possible first digits. That gives us 5,9,13,17,21,25,29,33,37,1 (39+2=41, but there is no 41, so begin at zero [NOT ONE] from 39).

Now, enumerate all the possible combinations:

3-1-19

3-5-19

3-9-19

#### RECOVERING MASTER LOCK COMBINATIONS

3-13-19 ... 7-1-19 7-9-19 <--This is the actual combination, by the way 7-13-19 ... etc., etc., etc.

So now, we have narrowed down the 64,000 combinations to a mere one hundred (10\*10\*1). This shouldn't take you more than 15 or 20 minutes to try all of the combinations. On average, it takes me 10 minutes from start to finish. Remember to mark down which combinations you've tried!

Good luck!

## **Possible Combination Listing**

Last Number = 0				
0-2-0	8-2-0	16-2-0	24-2-0	32-2-0
0-6-0	8-6-0	16-6-0	24-6-0	32-6-0
0-10-0	8-10-0	16-10-0	24-10-0	32-10-0
0-14-0	8-14-0	16-14-0	24-14-0	32-14-0
0-18-0	8-18-0	16-18-0	24-18-0	32-18-0
0-22-0	8-22-0	16-22-0	24-22-0	32-22-0
0-26-0	8-26-0	16-26-0	24-26-0	32-26-0
0-30-0	8-30-0	16-30-0	24-30-0	32-30-0
0-34-0	8-34-0	16-34-0	24-34-0	32-34-0
0-38-0	8-38-0	16-38-0	24-38-0	32-38-0
4-2-0	12-2-0	20-2-0	28-2-0	36-2-0
4-6-0	12-6-0	20-6-0	28-6-0	36-6-0
4-10-0	12-10-0	20-10-0	28-10-0	36-10-0
4-14-0	12-14-0	20-14-0	28-14-0	36-14-0
4-18-0	12-18-0	20-18-0	28-18-0	36-18-0
4-22-0	12-22-0	20-22-0	28-22-0	36-22-0
4-26-0	12-26-0	20-26-0	28-26-0	36-26-0
4-30-0	12-30-0	20-30-0	28-30-0	36-30-0
4-34-0	12-34-0	20-34-0	28-34-0	36-34-0
4-38-0	12-38-0	20-38-0	28-38-0	36-38-0

#### RECOVERING MASTER LOCK COMBINATIONS

Last Number = 1				
1-3-1	9-3-1	17-3-1	25-3-1	33-3-1
1-7-1	9-7-1	17-7-1	25-7-1	33-7-1
1-11-1	9-11-1	17-11-1	25-11-1	33-11-1
1-15-1	9-15-1	17-15-1	25-15-1	33-15-1
1-19-1	9-19-1	17-19-1	25-19-1	33-19-1
1-23-1	9-23-1	17-23-1	25-23-1	33-23-1
1-27-1	9-27-1	17-27-1	25-27-1	33-27-1
1-31-1	9-31-1	17-31-1	25-31-1	33-31-1
1-35-1	9-35-1	17-35-1	25-35-1	33-35-1
1-39-1	9-39-1	17-39-1	25-39-1	33-39-1
5-3-1	13-3-1	21-3-1	29-3-1	37-3-1
5-7-1	13-7-1	21-7-1	29-7-1	37-7-1
5-11-1	13-11-1	21-11-1	29-11-1	37-11-1
5-15-1	13-15-1	21-15-1	29-15-1	37-15-1
5-19-1	13-19-1	21-19-1	29-19-1	37-19-1
5-23-1	13-23-1	21-23-1	29-23-1	37-23-1
5-27-1	13-27-1	21-27-1	29-27-1	37-27-1
5-31-1	13-31-1	21-31-1	29-31-1	37-31-1
5-35-1	13-35-1	21-35-1	29-35-1	37-35-1
5-39-1	13-39-1	21-39-1	29-39-1	37-39-1

<b>Last Number = 2</b> 2-4-2	10-20-2	18-36-2	30-12-2	38-28-2
2-8-2	10-24-2	18-0-2	30-16-2	38-32-2
2-12-2	10-28-2	22-4-2	30-20-2	38-36-2
2-16-2	10-32-2	22-8-2	30-24-2	38-0-2
2-20-2	10-36-2	22-12-2	30-28-2	
2-24-2	10-0-2	22-16-2	30-32-2	
2-28-2	14-4-2	22-20-2	30-36-2	
2-32-2	14-8-2	22-24-2	30-0-2	
2-36-2	14-12-2	22-28-2	34-4-2	
2-0-2	14-16-2	22-32-2	34-8-2	
6-4-2	14-20-2	22-36-2	34-12-2	
6-8-2	14-24-2	22-0-2	34-16-2	
6-12-2	14-28-2	26-4-2	34-20-2	
6-16-2	14-32-2	26-8-2	34-24-2	
6-20-2	14-36-2	26-12-2	34-28-2	
6-24-2	14-0-2	26-16-2	34-32-2	
6-28-2	18-4-2	26-20-2	34-36-2	
6-32-2	18-8-2	26-24-2	34-0-2	
6-36-2	18-12-2	26-28-2	38-4-2	
6-0-2	18-16-2	26-32-2	38-8-2	
10-4-2	18-20-2	26-36-2	38-12-2	
10-8-2	18-24-2	26-0-2	38-16-2	
10-12-2	18-28-2	30-4-2	38-20-2	
10-16-2	18-32-2	30-8-2	38-24-2	

<b>Last Number = 3</b> 3-5-3	11-21-3	19-37-3	31-13-3	39-29-3
3-9-3	11-25-3	19-1-3	31-17-3	39-33-3
3-13-3	11-29-3	23-5-3	31-21-3	39-37-3
3-17-3	11-33-3	23-9-3	31-25-3	39-1-3
3-21-3	11-37-3	23-13-3	31-29-3	
3-25-3	11-1-3	23-17-3	31-33-3	
3-29-3	15-5-3	23-21-3	31-37-3	
3-33-3	15-9-3	23-25-3	31-1-3	
3-37-3	15-13-3	23-29-3	35-5-3	
3-1-3	15-17-3	23-33-3	35-9-3	
7-5-3	15-21-3	23-37-3	35-13-3	
7-9-3	15-25-3	23-1-3	35-17-3	
7-13-3	15-29-3	27-5-3	35-21-3	
7-17-3	15-33-3	27-9-3	35-25-3	
7-21-3	15-37-3	27-13-3	35-29-3	
7-25-3	15-1-3	27-17-3	35-33-3	
7-29-3	19-5-3	27-21-3	35-37-3	
7-33-3	19-9-3	27-25-3	35-1-3	
7-37-3	19-13-3	27-29-3	39-5-3	
7-1-3	19-17-3	27-33-3	39-9-3	
11-5-3	19-21-3	27-37-3	39-13-3	
11-9-3	19-25-3	27-1-3	39-17-3	
11-13-3	19-29-3	31-5-3	39-21-3	
11-17-3	19-33-3	31-9-3	39-25-3	

Last Number = 4				
0-2-4	8-18-4	16-34-4	28-10-4	36-26-4
0-6-4	8-22-4	16-38-4	28-14-4	36-30-4
0-10-4	8-26-4	20-2-4	28-18-4	36-34-4
0-14-4	8-30-4	20-6-4	28-22-4	36-38-4
0-18-4	8-34-4	20-10-4	28-26-4	
0-22-4	8-38-4	20-14-4	28-30-4	
0-26-4	12-2-4	20-18-4	28-34-4	
0-30-4	12-6-4	20-22-4	28-38-4	
0-34-4	12-10-4	20-26-4	32-2-4	
0-38-4	12-14-4	20-30-4	32-6-4	
4-2-4	12-18-4	20-34-4	32-10-4	
4-6-4	12-22-4	20-38-4	32-14-4	
4-10-4	12-26-4	24-2-4	32-18-4	
4-14-4	12-30-4	24-6-4	32-22-4	
4-18-4	12-34-4	24-10-4	32-26-4	
4-22-4	12-38-4	24-14-4	32-30-4	
4-26-4	16-2-4	24-18-4	32-34-4	
4-30-4	16-6-4	24-22-4	32-38-4	
4-34-4	16-10-4	24-26-4	36-2-4	
4-38-4	16-14-4	24-30-4	36-6-4	
8-2-4	16-18-4	24-34-4	36-10-4	
8-6-4	16-22-4	24-38-4	36-14-4	
8-10-4	16-26-4	28-2-4	36-18-4	
8-14-4	16-30-4	28-6-4	36-22-4	

Land Name barra E				
<b>Last Number = 5</b> 1-3-5	9-19-5	17-35-5	29-11-5	37-27-5
1-7-5	9-23-5	17-39-5	29-15-5	37-31-5
1-11-5	9-27-5	21-3-5	29-19-5	37-35-5
1-15-5	9-31-5	21-7-5	29-23-5	37-39-5
1-19-5	9-35-5	21-11-5	29-27-5	
1-23-5	9-39-5	21-15-5	29-31-5	
1-27-5	13-3-5	21-19-5	29-35-5	
1-31-5	13-7-5	21-23-5	29-39-5	
1-35-5	13-11-5	21-27-5	33-3-5	
1-39-5	13-15-5	21-31-5	33-7-5	
5-3-5	13-19-5	21-35-5	33-11-5	
5-7-5	13-23-5	21-39-5	33-15-5	
5-11-5	13-27-5	25-3-5	33-19-5	
5-15-5	13-31-5	25-7-5	33-23-5	
5-19-5	13-35-5	25-11-5	33-27-5	
5-23-5	13-39-5	25-15-5	33-31-5	
5-27-5	17-3-5	25-19-5	33-35-5	
5-31-5	17-7-5	25-23-5	33-39-5	
5-35-5	17-11-5	25-27-5	37-3-5	
5-39-5	17-15-5	25-31-5	37-7-5	
9-3-5	17-19-5	25-35-5	37-11-5	
9-7-5	17-23-5	25-39-5	37-15-5	
9-11-5	17-27-5	29-3-5	37-19-5	
9-15-5	17-31-5	29-7-5	37-23-5	

<b>Last Number = 6</b> 2-4-6	10-20-6	18-36-6	30-12-6	38-28-6
2-8-6	10-24-6	18-0-6	30-16-6	38-32-6
2-12-6	10-28-6	22-4-6	30-20-6	38-36-6
2-16-6	10-32-6	22-8-6	30-24-6	38-0-6
2-20-6	10-36-6	22-12-6	30-28-6	
2-24-6	10-0-6	22-16-6	30-32-6	
2-28-6	14-4-6	22-20-6	30-36-6	
2-32-6	14-8-6	22-24-6	30-0-6	
2-36-6	14-12-6	22-28-6	34-4-6	
2-0-6	14-16-6	22-32-6	34-8-6	
6-4-6	14-20-6	22-36-6	34-12-6	
6-8-6	14-24-6	22-0-6	34-16-6	
6-12-6	14-28-6	26-4-6	34-20-6	
6-16-6	14-32-6	26-8-6	34-24-6	
6-20-6	14-36-6	26-12-6	34-28-6	
6-24-6	14-0-6	26-16-6	34-32-6	
6-28-6	18-4-6	26-20-6	34-36-6	
6-32-6	18-8-6	26-24-6	34-0-6	
6-36-6	18-12-6	26-28-6	38-4-6	
6-0-6	18-16-6	26-32-6	38-8-6	
10-4-6	18-20-6	26-36-6	38-12-6	
10-8-6	18-24-6	26-0-6	38-16-6	
10-12-6	18-28-6	30-4-6	38-20-6	
10-16-6	18-32-6	30-8-6	38-24-6	

<b>Last Number = 7</b> 3-5-7	11-21-7	19-37-7	31-13-7	39-29-7
3-9-7	11-25-7	19-1-7	31-17-7	39-33-7
3-13-7	11-29-7	23-5-7	31-21-7	39-37-7
3-17-7	11-33-7	23-9-7	31-25-7	39-1-7
3-21-7	11-37-7	23-13-7	31-29-7	
3-25-7	11-1-7	23-17-7	31-33-7	
3-29-7	15-5-7	23-21-7	31-37-7	
3-33-7	15-9-7	23-25-7	31-1-7	
3-37-7	15-13-7	23-29-7	35-5-7	
3-1-7	15-17-7	23-33-7	35-9-7	
7-5-7	15-21-7	23-37-7	35-13-7	
7-9-7	15-25-7	23-1-7	35-17-7	
7-13-7	15-29-7	27-5-7	35-21-7	
7-17-7	15-33-7	27-9-7	35-25-7	
7-21-7	15-37-7	27-13-7	35-29-7	
7-25-7	15-1-7	27-17-7	35-33-7	
7-29-7	19-5-7	27-21-7	35-37-7	
7-33-7	19-9-7	27-25-7	35-1-7	
7-37-7	19-13-7	27-29-7	39-5-7	
7-1-7	19-17-7	27-33-7	39-9-7	
11-5-7	19-21-7	27-37-7	39-13-7	
11-9-7	19-25-7	27-1-7	39-17-7	
11-13-7	19-29-7	31-5-7	39-21-7	
11-17-7	19-33-7	31-9-7	39-25-7	

Last Normbon = 0				
<b>Last Number = 8</b> 0-2-8	8-18-8	16-34-8	28-10-8	36-26-8
0-6-8	8-22-8	16-38-8	28-14-8	36-30-8
0-10-8	8-26-8	20-2-8	28-18-8	36-34-8
0-14-8	8-30-8	20-6-8	28-22-8	36-38-8
0-18-8	8-34-8	20-10-8	28-26-8	
0-22-8	8-38-8	20-14-8	28-30-8	
0-26-8	12-2-8	20-18-8	28-34-8	
0-30-8	12-6-8	20-22-8	28-38-8	
0-34-8	12-10-8	20-26-8	32-2-8	
0-38-8	12-14-8	20-30-8	32-6-8	
4-2-8	12-18-8	20-34-8	32-10-8	
4-6-8	12-22-8	20-38-8	32-14-8	
4-10-8	12-26-8	24-2-8	32-18-8	
4-14-8	12-30-8	24-6-8	32-22-8	
4-18-8	12-34-8	24-10-8	32-26-8	
4-22-8	12-38-8	24-14-8	32-30-8	
4-26-8	16-2-8	24-18-8	32-34-8	
4-30-8	16-6-8	24-22-8	32-38-8	
4-34-8	16-10-8	24-26-8	36-2-8	
4-38-8	16-14-8	24-30-8	36-6-8	
8-2-8	16-18-8	24-34-8	36-10-8	
8-6-8	16-22-8	24-38-8	36-14-8	
8-10-8	16-26-8	28-2-8	36-18-8	
8-14-8	16-30-8	28-6-8	36-22-8	

Last Name and O				
<b>Last Number = 9</b> 1-3-9	9-19-9	17-35-9	29-11-9	37-27-9
1-7-9	9-23-9	17-39-9	29-15-9	37-31-9
1-11-9	9-27-9	21-3-9	29-19-9	37-35-9
1-15-9	9-31-9	21-7-9	29-23-9	37-39-9
1-19-9	9-35-9	21-11-9	29-27-9	
1-23-9	9-39-9	21-15-9	29-31-9	
1-27-9	13-3-9	21-19-9	29-35-9	
1-31-9	13-7-9	21-23-9	29-39-9	
1-35-9	13-11-9	21-27-9	33-3-9	
1-39-9	13-15-9	21-31-9	33-7-9	
5-3-9	13-19-9	21-35-9	33-11-9	
5-7-9	13-23-9	21-39-9	33-15-9	
5-11-9	13-27-9	25-3-9	33-19-9	
5-15-9	13-31-9	25-7-9	33-23-9	
5-19-9	13-35-9	25-11-9	33-27-9	
5-23-9	13-39-9	25-15-9	33-31-9	
5-27-9	17-3-9	25-19-9	33-35-9	
5-31-9	17-7-9	25-23-9	33-39-9	
5-35-9	17-11-9	25-27-9	37-3-9	
5-39-9	17-15-9	25-31-9	37-7-9	
9-3-9	17-19-9	25-35-9	37-11-9	
9-7-9	17-23-9	25-39-9	37-15-9	
9-11-9	17-27-9	29-3-9	37-19-9	
9-15-9	17-31-9	29-7-9	37-23-9	

Last Number = 10				
2-4-10	10-20-10	18-36-10	30-12-10	38-28-10
2-8-10	10-24-10	18-0-10	30-16-10	38-32-10
2-12-10	10-28-10	22-4-10	30-20-10	38-36-10
2-16-10	10-32-10	22-8-10	30-24-10	38-0-10
2-20-10	10-36-10	22-12-10	30-28-10	
2-24-10	10-0-10	22-16-10	30-32-10	
2-28-10	14-4-10	22-20-10	30-36-10	
2-32-10	14-8-10	22-24-10	30-0-10	
2-36-10	14-12-10	22-28-10	34-4-10	
2-0-10	14-16-10	22-32-10	34-8-10	
6-4-10	14-20-10	22-36-10	34-12-10	
6-8-10	14-24-10	22-0-10	34-16-10	
6-12-10	14-28-10	26-4-10	34-20-10	
6-16-10	14-32-10	26-8-10	34-24-10	
6-20-10	14-36-10	26-12-10	34-28-10	
6-24-10	14-0-10	26-16-10	34-32-10	
6-28-10	18-4-10	26-20-10	34-36-10	
6-32-10	18-8-10	26-24-10	34-0-10	
6-36-10	18-12-10	26-28-10	38-4-10	
6-0-10	18-16-10	26-32-10	38-8-10	
10-4-10	18-20-10	26-36-10	38-12-10	
10-8-10	18-24-10	26-0-10	38-16-10	
10-12-10	18-28-10	30-4-10	38-20-10	
10-16-10	18-32-10	30-8-10	38-24-10	

<b>Last Number = 11</b> 3-5-11	11-21-11	19-37-11	31-13-11	39-29-11
3-9-11	11-25-11	19-1-11	31-17-11	39-33-11
3-13-11	11-29-11	23-5-11	31-21-11	39-37-11
3-17-11	11-33-11	23-9-11	31-25-11	39-1-11
3-21-11	11-37-11	23-13-11	31-29-11	
3-25-11	11-1-11	23-17-11	31-33-11	
3-29-11	15-5-11	23-21-11	31-37-11	
3-33-11	15-9-11	23-25-11	31-1-11	
3-37-11	15-13-11	23-29-11	35-5-11	
3-1-11	15-17-11	23-33-11	35-9-11	
7-5-11	15-21-11	23-37-11	35-13-11	
7-9-11	15-25-11	23-1-11	35-17-11	
7-13-11	15-29-11	27-5-11	35-21-11	
7-17-11	15-33-11	27-9-11	35-25-11	
7-21-11	15-37-11	27-13-11	35-29-11	
7-25-11	15-1-11	27-17-11	35-33-11	
7-29-11	19-5-11	27-21-11	35-37-11	
7-33-11	19-9-11	27-25-11	35-1-11	
7-37-11	19-13-11	27-29-11	39-5-11	
7-1-11	19-17-11	27-33-11	39-9-11	
11-5-11	19-21-11	27-37-11	39-13-11	
11-9-11	19-25-11	27-1-11	39-17-11	
11-13-11	19-29-11	31-5-11	39-21-11	
11-17-11	19-33-11	31-9-11	39-25-11	

<b>Last Number = 12</b> 0-2-12	8-18-12	16-34-12	28-10-12	36-26-12
0-6-12	8-22-12	16-38-12	28-14-12	36-30-12
0-10-12	8-26-12	20-2-12	28-18-12	36-34-12
0-14-12	8-30-12	20-6-12	28-22-12	36-38-12
0-18-12	8-34-12	20-10-12	28-26-12	
0-22-12	8-38-12	20-14-12	28-30-12	
0-26-12	12-2-12	20-18-12	28-34-12	
0-30-12	12-6-12	20-22-12	28-38-12	
0-34-12	12-10-12	20-26-12	32-2-12	
0-38-12	12-14-12	20-30-12	32-6-12	
4-2-12	12-18-12	20-34-12	32-10-12	
4-6-12	12-22-12	20-38-12	32-14-12	
4-10-12	12-26-12	24-2-12	32-18-12	
4-14-12	12-30-12	24-6-12	32-22-12	
4-18-12	12-34-12	24-10-12	32-26-12	
4-22-12	12-38-12	24-14-12	32-30-12	
4-26-12	16-2-12	24-18-12	32-34-12	
4-30-12	16-6-12	24-22-12	32-38-12	
4-34-12	16-10-12	24-26-12	36-2-12	
4-38-12	16-14-12	24-30-12	36-6-12	
8-2-12	16-18-12	24-34-12	36-10-12	
8-6-12	16-22-12	24-38-12	36-14-12	
8-10-12	16-26-12	28-2-12	36-18-12	
8-14-12	16-30-12	28-6-12	36-22-12	

<b>Last Number = 13</b> 1-3-13	9-19-13	17-35-13	29-11-13	37-27-13
1-7-13	9-23-13	17-39-13	29-15-13	37-31-13
1-11-13	9-27-13	21-3-13	29-19-13	37-35-13
1-15-13	9-31-13	21-7-13	29-23-13	37-39-13
1-19-13	9-35-13	21-11-13	29-27-13	
1-23-13	9-39-13	21-15-13	29-31-13	
1-27-13	13-3-13	21-19-13	29-35-13	
1-31-13	13-7-13	21-23-13	29-39-13	
1-35-13	13-11-13	21-27-13	33-3-13	
1-39-13	13-15-13	21-31-13	33-7-13	
5-3-13	13-19-13	21-35-13	33-11-13	
5-7-13	13-23-13	21-39-13	33-15-13	
5-11-13	13-27-13	25-3-13	33-19-13	
5-15-13	13-31-13	25-7-13	33-23-13	
5-19-13	13-35-13	25-11-13	33-27-13	
5-23-13	13-39-13	25-15-13	33-31-13	
5-27-13	17-3-13	25-19-13	33-35-13	
5-31-13	17-7-13	25-23-13	33-39-13	
5-35-13	17-11-13	25-27-13	37-3-13	
5-39-13	17-15-13	25-31-13	37-7-13	
9-3-13	17-19-13	25-35-13	37-11-13	
9-7-13	17-23-13	25-39-13	37-15-13	
9-11-13	17-27-13	29-3-13	37-19-13	
9-15-13	17-31-13	29-7-13	37-23-13	

1 4 N 1 4 4				
<b>Last Number = 14</b> 2-4-14	10-20-14	18-36-14	30-12-14	38-28-14
2-8-14	10-24-14	18-0-14	30-16-14	38-32-14
2-12-14	10-28-14	22-4-14	30-20-14	38-36-14
2-16-14	10-32-14	22-8-14	30-24-14	38-0-14
2-20-14	10-36-14	22-12-14	30-28-14	
2-24-14	10-0-14	22-16-14	30-32-14	
2-28-14	14-4-14	22-20-14	30-36-14	
2-32-14	14-8-14	22-24-14	30-0-14	
2-36-14	14-12-14	22-28-14	34-4-14	
2-0-14	14-16-14	22-32-14	34-8-14	
6-4-14	14-20-14	22-36-14	34-12-14	
6-8-14	14-24-14	22-0-14	34-16-14	
6-12-14	14-28-14	26-4-14	34-20-14	
6-16-14	14-32-14	26-8-14	34-24-14	
6-20-14	14-36-14	26-12-14	34-28-14	
6-24-14	14-0-14	26-16-14	34-32-14	
6-28-14	18-4-14	26-20-14	34-36-14	
6-32-14	18-8-14	26-24-14	34-0-14	
6-36-14	18-12-14	26-28-14	38-4-14	
6-0-14	18-16-14	26-32-14	38-8-14	
10-4-14	18-20-14	26-36-14	38-12-14	
10-8-14	18-24-14	26-0-14	38-16-14	
10-12-14	18-28-14	30-4-14	38-20-14	
10-16-14	18-32-14	30-8-14	38-24-14	

<b>Last Number = 15</b> 3-5-15	11-21-15	19-37-15	31-13-15	39-29-15
3-9-15	11-25-15	19-1-15	31-17-15	39-33-15
3-13-15	11-29-15	23-5-15	31-21-15	39-37-15
3-17-15	11-33-15	23-9-15	31-25-15	39-1-15
3-21-15	11-37-15	23-13-15	31-29-15	
3-25-15	11-1-15	23-17-15	31-33-15	
3-29-15	15-5-15	23-21-15	31-37-15	
3-33-15	15-9-15	23-25-15	31-1-15	
3-37-15	15-13-15	23-29-15	35-5-15	
3-1-15	15-17-15	23-33-15	35-9-15	
7-5-15	15-21-15	23-37-15	35-13-15	
7-9-15	15-25-15	23-1-15	35-17-15	
7-13-15	15-29-15	27-5-15	35-21-15	
7-17-15	15-33-15	27-9-15	35-25-15	
7-21-15	15-37-15	27-13-15	35-29-15	
7-25-15	15-1-15	27-17-15	35-33-15	
7-29-15	19-5-15	27-21-15	35-37-15	
7-33-15	19-9-15	27-25-15	35-1-15	
7-37-15	19-13-15	27-29-15	39-5-15	
7-1-15	19-17-15	27-33-15	39-9-15	
11-5-15	19-21-15	27-37-15	39-13-15	
11-9-15	19-25-15	27-1-15	39-17-15	
11-13-15	19-29-15	31-5-15	39-21-15	
11-17-15	19-33-15	31-9-15	39-25-15	

Last Number = 16				
0-2-16	8-18-16	16-34-16	28-10-16	36-26-16
0-6-16	8-22-16	16-38-16	28-14-16	36-30-16
0-10-16	8-26-16	20-2-16	28-18-16	36-34-16
0-14-16	8-30-16	20-6-16	28-22-16	36-38-16
0-18-16	8-34-16	20-10-16	28-26-16	
0-22-16	8-38-16	20-14-16	28-30-16	
0-26-16	12-2-16	20-18-16	28-34-16	
0-30-16	12-6-16	20-22-16	28-38-16	
0-34-16	12-10-16	20-26-16	32-2-16	
0-38-16	12-14-16	20-30-16	32-6-16	
4-2-16	12-18-16	20-34-16	32-10-16	
4-6-16	12-22-16	20-38-16	32-14-16	
4-10-16	12-26-16	24-2-16	32-18-16	
4-14-16	12-30-16	24-6-16	32-22-16	
4-18-16	12-34-16	24-10-16	32-26-16	
4-22-16	12-38-16	24-14-16	32-30-16	
4-26-16	16-2-16	24-18-16	32-34-16	
4-30-16	16-6-16	24-22-16	32-38-16	
4-34-16	16-10-16	24-26-16	36-2-16	
4-38-16	16-14-16	24-30-16	36-6-16	
8-2-16	16-18-16	24-34-16	36-10-16	
8-6-16	16-22-16	24-38-16	36-14-16	
8-10-16	16-26-16	28-2-16	36-18-16	
8-14-16	16-30-16	28-6-16	36-22-16	

L 4 Novel 47				
<b>Last Number = 17</b> 1-3-17	9-19-17	17-35-17	29-11-17	37-27-17
1-7-17	9-23-17	17-39-17	29-15-17	37-31-17
1-11-17	9-27-17	21-3-17	29-19-17	37-35-17
1-15-17	9-31-17	21-7-17	29-23-17	37-39-17
1-19-17	9-35-17	21-11-17	29-27-17	
1-23-17	9-39-17	21-15-17	29-31-17	
1-27-17	13-3-17	21-19-17	29-35-17	
1-31-17	13-7-17	21-23-17	29-39-17	
1-35-17	13-11-17	21-27-17	33-3-17	
1-39-17	13-15-17	21-31-17	33-7-17	
5-3-17	13-19-17	21-35-17	33-11-17	
5-7-17	13-23-17	21-39-17	33-15-17	
5-11-17	13-27-17	25-3-17	33-19-17	
5-15-17	13-31-17	25-7-17	33-23-17	
5-19-17	13-35-17	25-11-17	33-27-17	
5-23-17	13-39-17	25-15-17	33-31-17	
5-27-17	17-3-17	25-19-17	33-35-17	
5-31-17	17-7-17	25-23-17	33-39-17	
5-35-17	17-11-17	25-27-17	37-3-17	
5-39-17	17-15-17	25-31-17	37-7-17	
9-3-17	17-19-17	25-35-17	37-11-17	
9-7-17	17-23-17	25-39-17	37-15-17	
9-11-17	17-27-17	29-3-17	37-19-17	
9-15-17	17-31-17	29-7-17	37-23-17	

L 4 N 4 O				
<b>Last Number = 18</b> 2-4-18	10-20-18	18-36-18	30-12-18	38-28-18
2-8-18	10-24-18	18-0-18	30-16-18	38-32-18
2-12-18	10-28-18	22-4-18	30-20-18	38-36-18
2-16-18	10-32-18	22-8-18	30-24-18	38-0-18
2-20-18	10-36-18	22-12-18	30-28-18	
2-24-18	10-0-18	22-16-18	30-32-18	
2-28-18	14-4-18	22-20-18	30-36-18	
2-32-18	14-8-18	22-24-18	30-0-18	
2-36-18	14-12-18	22-28-18	34-4-18	
2-0-18	14-16-18	22-32-18	34-8-18	
6-4-18	14-20-18	22-36-18	34-12-18	
6-8-18	14-24-18	22-0-18	34-16-18	
6-12-18	14-28-18	26-4-18	34-20-18	
6-16-18	14-32-18	26-8-18	34-24-18	
6-20-18	14-36-18	26-12-18	34-28-18	
6-24-18	14-0-18	26-16-18	34-32-18	
6-28-18	18-4-18	26-20-18	34-36-18	
6-32-18	18-8-18	26-24-18	34-0-18	
6-36-18	18-12-18	26-28-18	38-4-18	
6-0-18	18-16-18	26-32-18	38-8-18	
10-4-18	18-20-18	26-36-18	38-12-18	
10-8-18	18-24-18	26-0-18	38-16-18	
10-12-18	18-28-18	30-4-18	38-20-18	
10-16-18	18-32-18	30-8-18	38-24-18	

<b>Last Number = 19</b> 3-5-19	11-21-19	19-37-19	31-13-19	39-29-19
3-9-19	11-25-19	19-1-19	31-17-19	39-33-19
3-13-19	11-29-19	23-5-19	31-21-19	39-37-19
3-17-19	11-33-19	23-9-19	31-25-19	39-1-19
3-21-19	11-37-19	23-13-19	31-29-19	
3-25-19	11-1-19	23-17-19	31-33-19	
3-29-19	15-5-19	23-21-19	31-37-19	
3-33-19	15-9-19	23-25-19	31-1-19	
3-37-19	15-13-19	23-29-19	35-5-19	
3-1-19	15-17-19	23-33-19	35-9-19	
7-5-19	15-21-19	23-37-19	35-13-19	
7-9-19	15-25-19	23-1-19	35-17-19	
7-13-19	15-29-19	27-5-19	35-21-19	
7-17-19	15-33-19	27-9-19	35-25-19	
7-21-19	15-37-19	27-13-19	35-29-19	
7-25-19	15-1-19	27-17-19	35-33-19	
7-29-19	19-5-19	27-21-19	35-37-19	
7-33-19	19-9-19	27-25-19	35-1-19	
7-37-19	19-13-19	27-29-19	39-5-19	
7-1-19	19-17-19	27-33-19	39-9-19	
11-5-19	19-21-19	27-37-19	39-13-19	
11-9-19	19-25-19	27-1-19	39-17-19	
11-13-19	19-29-19	31-5-19	39-21-19	
11-17-19	19-33-19	31-9-19	39-25-19	

L ( N ) 00				
<b>Last Number = 20</b> ()-2-2()	8-18-20	16-34-20	28-10-20	36-26-20
0-6-20	8-22-20	16-38-20	28-14-20	36-30-20
0-10-20	8-26-20	20-2-20	28-18-20	36-34-20
0-14-20	8-30-20	20-6-20	28-22-20	36-38-20
0-18-20	8-34-20	20-10-20	28-26-20	
0-22-20	8-38-20	20-14-20	28-30-20	
0-26-20	12-2-20	20-18-20	28-34-20	
0-30-20	12-6-20	20-22-20	28-38-20	
0-34-20	12-10-20	20-26-20	32-2-20	
0-38-20	12-14-20	20-30-20	32-6-20	
4-2-20	12-18-20	20-34-20	32-10-20	
4-6-20	12-22-20	20-38-20	32-14-20	
4-10-20	12-26-20	24-2-20	32-18-20	
4-14-20	12-30-20	24-6-20	32-22-20	
4-18-20	12-34-20	24-10-20	32-26-20	
4-22-20	12-38-20	24-14-20	32-30-20	
4-26-20	16-2-20	24-18-20	32-34-20	
4-30-20	16-6-20	24-22-20	32-38-20	
4-34-20	16-10-20	24-26-20	36-2-20	
4-38-20	16-14-20	24-30-20	36-6-20	
8-2-20	16-18-20	24-34-20	36-10-20	
8-6-20	16-22-20	24-38-20	36-14-20	
8-10-20	16-26-20	28-2-20	36-18-20	
8-14-20	16-30-20	28-6-20	36-22-20	

<b>Last Number = 21</b> 1-3-21	9-19-21	17-35-21	29-11-21	37-27-21
1-7-21	9-23-21	17-39-21	29-15-21	37-31-21
1-11-21	9-27-21	21-3-21	29-19-21	37-35-21
1-15-21	9-31-21	21-7-21	29-23-21	37-39-21
1-19-21	9-35-21	21-11-21	29-27-21	
1-23-21	9-39-21	21-15-21	29-31-21	
1-27-21	13-3-21	21-19-21	29-35-21	
1-31-21	13-7-21	21-23-21	29-39-21	
1-35-21	13-11-21	21-27-21	33-3-21	
1-39-21	13-15-21	21-31-21	33-7-21	
5-3-21	13-19-21	21-35-21	33-11-21	
5-7-21	13-23-21	21-39-21	33-15-21	
5-11-21	13-27-21	25-3-21	33-19-21	
5-15-21	13-31-21	25-7-21	33-23-21	
5-19-21	13-35-21	25-11-21	33-27-21	
5-23-21	13-39-21	25-15-21	33-31-21	
5-27-21	17-3-21	25-19-21	33-35-21	
5-31-21	17-7-21	25-23-21	33-39-21	
5-35-21	17-11-21	25-27-21	37-3-21	
5-39-21	17-15-21	25-31-21	37-7-21	
9-3-21	17-19-21	25-35-21	37-11-21	
9-7-21	17-23-21	25-39-21	37-15-21	
9-11-21	17-27-21	29-3-21	37-19-21	
9-15-21	17-31-21	29-7-21	37-23-21	

Last Number = 22				
2-4-22	10-20-22	18-36-22	30-12-22	38-28-22
2-8-22	10-24-22	18-0-22	30-16-22	38-32-22
2-12-22	10-28-22	22-4-22	30-20-22	38-36-22
2-16-22	10-32-22	22-8-22	30-24-22	38-0-22
2-20-22	10-36-22	22-12-22	30-28-22	
2-24-22	10-0-22	22-16-22	30-32-22	
2-28-22	14-4-22	22-20-22	30-36-22	
2-32-22	14-8-22	22-24-22	30-0-22	
2-36-22	14-12-22	22-28-22	34-4-22	
2-0-22	14-16-22	22-32-22	34-8-22	
6-4-22	14-20-22	22-36-22	34-12-22	
6-8-22	14-24-22	22-0-22	34-16-22	
6-12-22	14-28-22	26-4-22	34-20-22	
6-16-22	14-32-22	26-8-22	34-24-22	
6-20-22	14-36-22	26-12-22	34-28-22	
6-24-22	14-0-22	26-16-22	34-32-22	
6-28-22	18-4-22	26-20-22	34-36-22	
6-32-22	18-8-22	26-24-22	34-0-22	
6-36-22	18-12-22	26-28-22	38-4-22	
6-0-22	18-16-22	26-32-22	38-8-22	
10-4-22	18-20-22	26-36-22	38-12-22	
10-8-22	18-24-22	26-0-22	38-16-22	
10-12-22	18-28-22	30-4-22	38-20-22	
10-16-22	18-32-22	30-8-22	38-24-22	

<b>Last Number = 23</b> 3-5-23	11-21-23	19-37-23	31-13-23	39-29-23
3-9-23	11-25-23	19-1-23	31-17-23	39-33-23
3-13-23	11-29-23	23-5-23	31-21-23	39-37-23
3-17-23	11-33-23	23-9-23	31-25-23	39-1-23
3-21-23	11-37-23	23-13-23	31-29-23	
3-25-23	11-1-23	23-17-23	31-33-23	
3-29-23	15-5-23	23-21-23	31-37-23	
3-33-23	15-9-23	23-25-23	31-1-23	
3-37-23	15-13-23	23-29-23	35-5-23	
3-1-23	15-17-23	23-33-23	35-9-23	
7-5-23	15-21-23	23-37-23	35-13-23	
7-9-23	15-25-23	23-1-23	35-17-23	
7-13-23	15-29-23	27-5-23	35-21-23	
7-17-23	15-33-23	27-9-23	35-25-23	
7-21-23	15-37-23	27-13-23	35-29-23	
7-25-23	15-1-23	27-17-23	35-33-23	
7-29-23	19-5-23	27-21-23	35-37-23	
7-33-23	19-9-23	27-25-23	35-1-23	
7-37-23	19-13-23	27-29-23	39-5-23	
7-1-23	19-17-23	27-33-23	39-9-23	
11-5-23	19-21-23	27-37-23	39-13-23	
11-9-23	19-25-23	27-1-23	39-17-23	
11-13-23	19-29-23	31-5-23	39-21-23	
11-17-23	19-33-23	31-9-23	39-25-23	

<b>Last Number = 24</b> 0-2-24	8-18-24	16-34-24	28-10-24	36-26-24
0-6-24	8-22-24	16-38-24	28-14-24	36-30-24
0-10-24	8-26-24	20-2-24	28-18-24	36-34-24
0-14-24	8-30-24	20-6-24	28-22-24	36-38-24
0-18-24	8-34-24	20-10-24	28-26-24	
0-22-24	8-38-24	20-14-24	28-30-24	
0-26-24	12-2-24	20-18-24	28-34-24	
0-30-24	12-6-24	20-22-24	28-38-24	
0-34-24	12-10-24	20-26-24	32-2-24	
0-38-24	12-14-24	20-30-24	32-6-24	
4-2-24	12-18-24	20-34-24	32-10-24	
4-6-24	12-22-24	20-38-24	32-14-24	
4-10-24	12-26-24	24-2-24	32-18-24	
4-14-24	12-30-24	24-6-24	32-22-24	
4-18-24	12-34-24	24-10-24	32-26-24	
4-22-24	12-38-24	24-14-24	32-30-24	
4-26-24	16-2-24	24-18-24	32-34-24	
4-30-24	16-6-24	24-22-24	32-38-24	
4-34-24	16-10-24	24-26-24	36-2-24	
4-38-24	16-14-24	24-30-24	36-6-24	
8-2-24	16-18-24	24-34-24	36-10-24	
8-6-24	16-22-24	24-38-24	36-14-24	
8-10-24	16-26-24	28-2-24	36-18-24	
8-14-24	16-30-24	28-6-24	36-22-24	

<b>Last Number = 25</b> 1-3-25	9-19-25	17-35-25	29-11-25	37-27-25
1-7-25	9-23-25	17-39-25	29-15-25	37-31-25
1-11-25	9-27-25	21-3-25	29-19-25	37-35-25
1-15-25	9-31-25	21-7-25	29-23-25	37-39-25
1-19-25	9-35-25	21-11-25	29-27-25	
1-23-25	9-39-25	21-15-25	29-31-25	
1-27-25	13-3-25	21-19-25	29-35-25	
1-31-25	13-7-25	21-23-25	29-39-25	
1-35-25	13-11-25	21-27-25	33-3-25	
1-39-25	13-15-25	21-31-25	33-7-25	
5-3-25	13-19-25	21-35-25	33-11-25	
5-7-25	13-23-25	21-39-25	33-15-25	
5-11-25	13-27-25	25-3-25	33-19-25	
5-15-25	13-31-25	25-7-25	33-23-25	
5-19-25	13-35-25	25-11-25	33-27-25	
5-23-25	13-39-25	25-15-25	33-31-25	
5-27-25	17-3-25	25-19-25	33-35-25	
5-31-25	17-7-25	25-23-25	33-39-25	
5-35-25	17-11-25	25-27-25	37-3-25	
5-39-25	17-15-25	25-31-25	37-7-25	
9-3-25	17-19-25	25-35-25	37-11-25	
9-7-25	17-23-25	25-39-25	37-15-25	
9-11-25	17-27-25	29-3-25	37-19-25	
9-15-25	17-31-25	29-7-25	37-23-25	

1 4 N 1 00				
<b>Last Number = 26</b> 2-4-26	10-20-26	18-36-26	30-12-26	38-28-26
2-8-26	10-24-26	18-0-26	30-16-26	38-32-26
2-12-26	10-28-26	22-4-26	30-20-26	38-36-26
2-16-26	10-32-26	22-8-26	30-24-26	38-0-26
2-20-26	10-36-26	22-12-26	30-28-26	
2-24-26	10-0-26	22-16-26	30-32-26	
2-28-26	14-4-26	22-20-26	30-36-26	
2-32-26	14-8-26	22-24-26	30-0-26	
2-36-26	14-12-26	22-28-26	34-4-26	
2-0-26	14-16-26	22-32-26	34-8-26	
6-4-26	14-20-26	22-36-26	34-12-26	
6-8-26	14-24-26	22-0-26	34-16-26	
6-12-26	14-28-26	26-4-26	34-20-26	
6-16-26	14-32-26	26-8-26	34-24-26	
6-20-26	14-36-26	26-12-26	34-28-26	
6-24-26	14-0-26	26-16-26	34-32-26	
6-28-26	18-4-26	26-20-26	34-36-26	
6-32-26	18-8-26	26-24-26	34-0-26	
6-36-26	18-12-26	26-28-26	38-4-26	
6-0-26	18-16-26	26-32-26	38-8-26	
10-4-26	18-20-26	26-36-26	38-12-26	
10-8-26	18-24-26	26-0-26	38-16-26	
10-12-26	18-28-26	30-4-26	38-20-26	
10-16-26	18-32-26	30-8-26	38-24-26	

1 4 N 1 07				
<b>Last Number = 27</b> 3-5-27	11-21-27	19-37-27	31-13-27	39-29-27
3-9-27	11-25-27	19-1-27	31-17-27	39-33-27
3-13-27	11-29-27	23-5-27	31-21-27	39-37-27
3-17-27	11-33-27	23-9-27	31-25-27	39-1-27
3-21-27	11-37-27	23-13-27	31-29-27	
3-25-27	11-1-27	23-17-27	31-33-27	
3-29-27	15-5-27	23-21-27	31-37-27	
3-33-27	15-9-27	23-25-27	31-1-27	
3-37-27	15-13-27	23-29-27	35-5-27	
3-1-27	15-17-27	23-33-27	35-9-27	
7-5-27	15-21-27	23-37-27	35-13-27	
7-9-27	15-25-27	23-1-27	35-17-27	
7-13-27	15-29-27	27-5-27	35-21-27	
7-17-27	15-33-27	27-9-27	35-25-27	
7-21-27	15-37-27	27-13-27	35-29-27	
7-25-27	15-1-27	27-17-27	35-33-27	
7-29-27	19-5-27	27-21-27	35-37-27	
7-33-27	19-9-27	27-25-27	35-1-27	
7-37-27	19-13-27	27-29-27	39-5-27	
7-1-27	19-17-27	27-33-27	39-9-27	
11-5-27	19-21-27	27-37-27	39-13-27	
11-9-27	19-25-27	27-1-27	39-17-27	
11-13-27	19-29-27	31-5-27	39-21-27	
11-17-27	19-33-27	31-9-27	39-25-27	

<b>Last Number = 28</b> 0-2-28	8-18-28	16-34-28	28-10-28	36-26-28
0-6-28	8-22-28	16-38-28	28-14-28	36-30-28
0-10-28	8-26-28	20-2-28	28-18-28	36-34-28
0-14-28	8-30-28	20-6-28	28-22-28	36-38-28
0-18-28	8-34-28	20-10-28	28-26-28	
0-22-28	8-38-28	20-14-28	28-30-28	
0-26-28	12-2-28	20-18-28	28-34-28	
0-30-28	12-6-28	20-22-28	28-38-28	
0-34-28	12-10-28	20-26-28	32-2-28	
0-38-28	12-14-28	20-30-28	32-6-28	
4-2-28	12-18-28	20-34-28	32-10-28	
4-6-28	12-22-28	20-38-28	32-14-28	
4-10-28	12-26-28	24-2-28	32-18-28	
4-14-28	12-30-28	24-6-28	32-22-28	
4-18-28	12-34-28	24-10-28	32-26-28	
4-22-28	12-38-28	24-14-28	32-30-28	
4-26-28	16-2-28	24-18-28	32-34-28	
4-30-28	16-6-28	24-22-28	32-38-28	
4-34-28	16-10-28	24-26-28	36-2-28	
4-38-28	16-14-28	24-30-28	36-6-28	
8-2-28	16-18-28	24-34-28	36-10-28	
8-6-28	16-22-28	24-38-28	36-14-28	
8-10-28	16-26-28	28-2-28	36-18-28	
8-14-28	16-30-28	28-6-28	36-22-28	

<b>Last Number = 29</b> 1-3-29	9-19-29	17-35-29	29-11-29	37-27-29
1-7-29	9-23-29	17-39-29	29-15-29	37-31-29
1-11-29	9-27-29	21-3-29	29-19-29	37-35-29
1-15-29	9-31-29	21-7-29	29-23-29	37-39-29
1-19-29	9-35-29	21-11-29	29-27-29	
1-23-29	9-39-29	21-15-29	29-31-29	
1-27-29	13-3-29	21-19-29	29-35-29	
1-31-29	13-7-29	21-23-29	29-39-29	
1-35-29	13-11-29	21-27-29	33-3-29	
1-39-29	13-15-29	21-31-29	33-7-29	
5-3-29	13-19-29	21-35-29	33-11-29	
5-7-29	13-23-29	21-39-29	33-15-29	
5-11-29	13-27-29	25-3-29	33-19-29	
5-15-29	13-31-29	25-7-29	33-23-29	
5-19-29	13-35-29	25-11-29	33-27-29	
5-23-29	13-39-29	25-15-29	33-31-29	
5-27-29	17-3-29	25-19-29	33-35-29	
5-31-29	17-7-29	25-23-29	33-39-29	
5-35-29	17-11-29	25-27-29	37-3-29	
5-39-29	17-15-29	25-31-29	37-7-29	
9-3-29	17-19-29	25-35-29	37-11-29	
9-7-29	17-23-29	25-39-29	37-15-29	
9-11-29	17-27-29	29-3-29	37-19-29	
9-15-29	17-31-29	29-7-29	37-23-29	

1 4 N 1 00				
<b>Last Number = 30</b> 2-4-30	10-20-30	18-36-30	30-12-30	38-28-30
2-8-30	10-24-30	18-0-30	30-16-30	38-32-30
2-12-30	10-28-30	22-4-30	30-20-30	38-36-30
2-16-30	10-32-30	22-8-30	30-24-30	38-0-30
2-20-30	10-36-30	22-12-30	30-28-30	
2-24-30	10-0-30	22-16-30	30-32-30	
2-28-30	14-4-30	22-20-30	30-36-30	
2-32-30	14-8-30	22-24-30	30-0-30	
2-36-30	14-12-30	22-28-30	34-4-30	
2-0-30	14-16-30	22-32-30	34-8-30	
6-4-30	14-20-30	22-36-30	34-12-30	
6-8-30	14-24-30	22-0-30	34-16-30	
6-12-30	14-28-30	26-4-30	34-20-30	
6-16-30	14-32-30	26-8-30	34-24-30	
6-20-30	14-36-30	26-12-30	34-28-30	
6-24-30	14-0-30	26-16-30	34-32-30	
6-28-30	18-4-30	26-20-30	34-36-30	
6-32-30	18-8-30	26-24-30	34-0-30	
6-36-30	18-12-30	26-28-30	38-4-30	
6-0-30	18-16-30	26-32-30	38-8-30	
10-4-30	18-20-30	26-36-30	38-12-30	
10-8-30	18-24-30	26-0-30	38-16-30	
10-12-30	18-28-30	30-4-30	38-20-30	
10-16-30	18-32-30	30-8-30	38-24-30	

<b>Last Number = 31</b> 3-5-31	11-21-31	19-37-31	31-13-31	39-29-31
3-9-31	11-25-31	19-1-31	31-17-31	39-33-31
3-13-31	11-29-31	23-5-31	31-21-31	39-37-31
3-17-31	11-33-31	23-9-31	31-25-31	39-1-31
3-21-31	11-37-31	23-13-31	31-29-31	
3-25-31	11-1-31	23-17-31	31-33-31	
3-29-31	15-5-31	23-21-31	31-37-31	
3-33-31	15-9-31	23-25-31	31-1-31	
3-37-31	15-13-31	23-29-31	35-5-31	
3-1-31	15-17-31	23-33-31	35-9-31	
7-5-31	15-21-31	23-37-31	35-13-31	
7-9-31	15-25-31	23-1-31	35-17-31	
7-13-31	15-29-31	27-5-31	35-21-31	
7-17-31	15-33-31	27-9-31	35-25-31	
7-21-31	15-37-31	27-13-31	35-29-31	
7-25-31	15-1-31	27-17-31	35-33-31	
7-29-31	19-5-31	27-21-31	35-37-31	
7-33-31	19-9-31	27-25-31	35-1-31	
7-37-31	19-13-31	27-29-31	39-5-31	
7-1-31	19-17-31	27-33-31	39-9-31	
11-5-31	19-21-31	27-37-31	39-13-31	
11-9-31	19-25-31	27-1-31	39-17-31	
11-13-31	19-29-31	31-5-31	39-21-31	
11-17-31	19-33-31	31-9-31	39-25-31	

L ( N )				
<b>Last Number = 32</b> 0-2-32	8-18-32	16-34-32	28-10-32	36-26-32
0-6-32	8-22-32	16-38-32	28-14-32	36-30-32
0-10-32	8-26-32	20-2-32	28-18-32	36-34-32
0-14-32	8-30-32	20-6-32	28-22-32	36-38-32
0-18-32	8-34-32	20-10-32	28-26-32	
0-22-32	8-38-32	20-14-32	28-30-32	
0-26-32	12-2-32	20-18-32	28-34-32	
0-30-32	12-6-32	20-22-32	28-38-32	
0-34-32	12-10-32	20-26-32	32-2-32	
0-38-32	12-14-32	20-30-32	32-6-32	
4-2-32	12-18-32	20-34-32	32-10-32	
4-6-32	12-22-32	20-38-32	32-14-32	
4-10-32	12-26-32	24-2-32	32-18-32	
4-14-32	12-30-32	24-6-32	32-22-32	
4-18-32	12-34-32	24-10-32	32-26-32	
4-22-32	12-38-32	24-14-32	32-30-32	
4-26-32	16-2-32	24-18-32	32-34-32	
4-30-32	16-6-32	24-22-32	32-38-32	
4-34-32	16-10-32	24-26-32	36-2-32	
4-38-32	16-14-32	24-30-32	36-6-32	
8-2-32	16-18-32	24-34-32	36-10-32	
8-6-32	16-22-32	24-38-32	36-14-32	
8-10-32	16-26-32	28-2-32	36-18-32	
8-14-32	16-30-32	28-6-32	36-22-32	

<b>Last Number = 33</b> 1-3-33	9-19-33	17-35-33	29-11-33	37-27-33
1-7-33	9-23-33	17-39-33	29-15-33	37-31-33
1-11-33	9-27-33	21-3-33	29-19-33	37-35-33
1-15-33	9-31-33	21-7-33	29-23-33	37-39-33
1-19-33	9-35-33	21-11-33	29-27-33	
1-23-33	9-39-33	21-15-33	29-31-33	
1-27-33	13-3-33	21-19-33	29-35-33	
1-31-33	13-7-33	21-23-33	29-39-33	
1-35-33	13-11-33	21-27-33	33-3-33	
1-39-33	13-15-33	21-31-33	33-7-33	
5-3-33	13-19-33	21-35-33	33-11-33	
5-7-33	13-23-33	21-39-33	33-15-33	
5-11-33	13-27-33	25-3-33	33-19-33	
5-15-33	13-31-33	25-7-33	33-23-33	
5-19-33	13-35-33	25-11-33	33-27-33	
5-23-33	13-39-33	25-15-33	33-31-33	
5-27-33	17-3-33	25-19-33	33-35-33	
5-31-33	17-7-33	25-23-33	33-39-33	
5-35-33	17-11-33	25-27-33	37-3-33	
5-39-33	17-15-33	25-31-33	37-7-33	
9-3-33	17-19-33	25-35-33	37-11-33	
9-7-33	17-23-33	25-39-33	37-15-33	
9-11-33	17-27-33	29-3-33	37-19-33	
9-15-33	17-31-33	29-7-33	37-23-33	

<b>Last Number = 34</b> 2-4-34	10-20-34	18-36-34	30-12-34	38-28-34
2-8-34	10-24-34	18-0-34	30-16-34	38-32-34
2-12-34	10-28-34	22-4-34	30-20-34	38-36-34
2-16-34	10-32-34	22-8-34	30-24-34	38-0-34
2-20-34	10-36-34	22-12-34	30-28-34	
2-24-34	10-0-34	22-16-34	30-32-34	
2-28-34	14-4-34	22-20-34	30-36-34	
2-32-34	14-8-34	22-24-34	30-0-34	
2-36-34	14-12-34	22-28-34	34-4-34	
2-0-34	14-16-34	22-32-34	34-8-34	
6-4-34	14-20-34	22-36-34	34-12-34	
6-8-34	14-24-34	22-0-34	34-16-34	
6-12-34	14-28-34	26-4-34	34-20-34	
6-16-34	14-32-34	26-8-34	34-24-34	
6-20-34	14-36-34	26-12-34	34-28-34	
6-24-34	14-0-34	26-16-34	34-32-34	
6-28-34	18-4-34	26-20-34	34-36-34	
6-32-34	18-8-34	26-24-34	34-0-34	
6-36-34	18-12-34	26-28-34	38-4-34	
6-0-34	18-16-34	26-32-34	38-8-34	
10-4-34	18-20-34	26-36-34	38-12-34	
10-8-34	18-24-34	26-0-34	38-16-34	
10-12-34	18-28-34	30-4-34	38-20-34	
10-16-34	18-32-34	30-8-34	38-24-34	

1 4 Novele 05				
<b>Last Number = 35</b> 3-5-35	11-21-35	19-37-35	31-13-35	39-29-35
3-9-35	11-25-35	19-1-35	31-17-35	39-33-35
3-13-35	11-29-35	23-5-35	31-21-35	39-37-35
3-17-35	11-33-35	23-9-35	31-25-35	39-1-35
3-21-35	11-37-35	23-13-35	31-29-35	
3-25-35	11-1-35	23-17-35	31-33-35	
3-29-35	15-5-35	23-21-35	31-37-35	
3-33-35	15-9-35	23-25-35	31-1-35	
3-37-35	15-13-35	23-29-35	35-5-35	
3-1-35	15-17-35	23-33-35	35-9-35	
7-5-35	15-21-35	23-37-35	35-13-35	
7-9-35	15-25-35	23-1-35	35-17-35	
7-13-35	15-29-35	27-5-35	35-21-35	
7-17-35	15-33-35	27-9-35	35-25-35	
7-21-35	15-37-35	27-13-35	35-29-35	
7-25-35	15-1-35	27-17-35	35-33-35	
7-29-35	19-5-35	27-21-35	35-37-35	
7-33-35	19-9-35	27-25-35	35-1-35	
7-37-35	19-13-35	27-29-35	39-5-35	
7-1-35	19-17-35	27-33-35	39-9-35	
11-5-35	19-21-35	27-37-35	39-13-35	
11-9-35	19-25-35	27-1-35	39-17-35	
11-13-35	19-29-35	31-5-35	39-21-35	
11-17-35	19-33-35	31-9-35	39-25-35	

<b>Last Number = 36</b> 0-2-36	8-18-36	16-34-36	28-10-36	36-26-36
0-6-36	8-22-36	16-38-36	28-14-36	36-30-36
0-10-36	8-26-36	20-2-36	28-18-36	36-34-36
0-14-36	8-30-36	20-6-36	28-22-36	36-38-36
0-18-36	8-34-36	20-10-36	28-26-36	
0-22-36	8-38-36	20-14-36	28-30-36	
0-26-36	12-2-36	20-18-36	28-34-36	
0-30-36	12-6-36	20-22-36	28-38-36	
0-34-36	12-10-36	20-26-36	32-2-36	
0-38-36	12-14-36	20-30-36	32-6-36	
4-2-36	12-18-36	20-34-36	32-10-36	
4-6-36	12-22-36	20-38-36	32-14-36	
4-10-36	12-26-36	24-2-36	32-18-36	
4-14-36	12-30-36	24-6-36	32-22-36	
4-18-36	12-34-36	24-10-36	32-26-36	
4-22-36	12-38-36	24-14-36	32-30-36	
4-26-36	16-2-36	24-18-36	32-34-36	
4-30-36	16-6-36	24-22-36	32-38-36	
4-34-36	16-10-36	24-26-36	36-2-36	
4-38-36	16-14-36	24-30-36	36-6-36	
8-2-36	16-18-36	24-34-36	36-10-36	
8-6-36	16-22-36	24-38-36	36-14-36	
8-10-36	16-26-36	28-2-36	36-18-36	
8-14-36	16-30-36	28-6-36	36-22-36	

L 1 N 1 27				
<b>Last Number = 37</b> 1-3-37	9-19-37	17-35-37	29-11-37	37-27-37
1-7-37	9-23-37	17-39-37	29-15-37	37-31-37
1-11-37	9-27-37	21-3-37	29-19-37	37-35-37
1-15-37	9-31-37	21-7-37	29-23-37	37-39-37
1-19-37	9-35-37	21-11-37	29-27-37	
1-23-37	9-39-37	21-15-37	29-31-37	
1-27-37	13-3-37	21-19-37	29-35-37	
1-31-37	13-7-37	21-23-37	29-39-37	
1-35-37	13-11-37	21-27-37	33-3-37	
1-39-37	13-15-37	21-31-37	33-7-37	
5-3-37	13-19-37	21-35-37	33-11-37	
5-7-37	13-23-37	21-39-37	33-15-37	
5-11-37	13-27-37	25-3-37	33-19-37	
5-15-37	13-31-37	25-7-37	33-23-37	
5-19-37	13-35-37	25-11-37	33-27-37	
5-23-37	13-39-37	25-15-37	33-31-37	
5-27-37	17-3-37	25-19-37	33-35-37	
5-31-37	17-7-37	25-23-37	33-39-37	
5-35-37	17-11-37	25-27-37	37-3-37	
5-39-37	17-15-37	25-31-37	37-7-37	
9-3-37	17-19-37	25-35-37	37-11-37	
9-7-37	17-23-37	25-39-37	37-15-37	
9-11-37	17-27-37	29-3-37	37-19-37	
9-15-37	17-31-37	29-7-37	37-23-37	

1 4 N 1 00				
<b>Last Number = 38</b> 2-4-38	10-20-38	18-36-38	30-12-38	38-28-38
2-8-38	10-24-38	18-0-38	30-16-38	38-32-38
2-12-38	10-28-38	22-4-38	30-20-38	38-36-38
2-16-38	10-32-38	22-8-38	30-24-38	38-0-38
2-20-38	10-36-38	22-12-38	30-28-38	
2-24-38	10-0-38	22-16-38	30-32-38	
2-28-38	14-4-38	22-20-38	30-36-38	
2-32-38	14-8-38	22-24-38	30-0-38	
2-36-38	14-12-38	22-28-38	34-4-38	
2-0-38	14-16-38	22-32-38	34-8-38	
6-4-38	14-20-38	22-36-38	34-12-38	
6-8-38	14-24-38	22-0-38	34-16-38	
6-12-38	14-28-38	26-4-38	34-20-38	
6-16-38	14-32-38	26-8-38	34-24-38	
6-20-38	14-36-38	26-12-38	34-28-38	
6-24-38	14-0-38	26-16-38	34-32-38	
6-28-38	18-4-38	26-20-38	34-36-38	
6-32-38	18-8-38	26-24-38	34-0-38	
6-36-38	18-12-38	26-28-38	38-4-38	
6-0-38	18-16-38	26-32-38	38-8-38	
10-4-38	18-20-38	26-36-38	38-12-38	
10-8-38	18-24-38	26-0-38	38-16-38	
10-12-38	18-28-38	30-4-38	38-20-38	
10-16-38	18-32-38	30-8-38	38-24-38	

L = 4 N = = 00				
<b>Last Number = 39</b> 3-5-39	11-21-39	19-37-39	31-13-39	39-29-39
3-9-39	11-25-39	19-1-39	31-17-39	39-33-39
3-13-39	11-29-39	23-5-39	31-21-39	39-37-39
3-17-39	11-33-39	23-9-39	31-25-39	39-1-39
3-21-39	11-37-39	23-13-39	31-29-39	
3-25-39	11-1-39	23-17-39	31-33-39	
3-29-39	15-5-39	23-21-39	31-37-39	
3-33-39	15-9-39	23-25-39	31-1-39	
3-37-39	15-13-39	23-29-39	35-5-39	
3-1-39	15-17-39	23-33-39	35-9-39	
7-5-39	15-21-39	23-37-39	35-13-39	
7-9-39	15-25-39	23-1-39	35-17-39	
7-13-39	15-29-39	27-5-39	35-21-39	
7-17-39	15-33-39	27-9-39	35-25-39	
7-21-39	15-37-39	27-13-39	35-29-39	
7-25-39	15-1-39	27-17-39	35-33-39	
7-29-39	19-5-39	27-21-39	35-37-39	
7-33-39	19-9-39	27-25-39	35-1-39	
7-37-39	19-13-39	27-29-39	39-5-39	
7-1-39	19-17-39	27-33-39	39-9-39	
11-5-39	19-21-39	27-37-39	39-13-39	
11-9-39	19-25-39	27-1-39	39-17-39	
11-13-39	19-29-39	31-5-39	39-21-39	
11-17-39	19-33-39	31-9-39	39-25-39	

Scratch Pad				

·	
- <u></u>	
- <u></u>	